



August 17, 2017

## August 2017 Citizens Advisory Board Meeting Agenda

**Chair**

Renie Barger

**Vice-Chair**

Mike Kemp

**Board Members**

Renea Akin  
Charles Allen  
Cindy Butterbaugh  
Victoria Caldwell  
Judy Clayton  
Basil Drossos  
Nancy Duff  
Celeste Emerson  
Lesley Garrett  
Tom Grassham  
Shay Morgan  
Bill Murphy  
Cindy Ragland  
Patrick White  
Carol Young

Jennifer Woodard  
*DOE DDFO*

Buz Smith  
*DOE Federal Coordinator*

**Board Liaisons**

Brian Begley  
*Division of Waste  
Management*

Julie Corkran  
*Environmental Protection  
Agency*

Mike Hardin  
*Fish and Wildlife Resources*

Stephanie Brock  
*Radiation Health Branch*

**Support Services**

EHI Consultants, Inc.  
111 Memorial Drive  
Paducah, KY 42001  
Phone 270.554.3004  
Fax 270.554.3248

[www.pgdpcab.energy.gov](http://www.pgdpcab.energy.gov)  
[info@pgdpcab.org](mailto:info@pgdpcab.org)

**6:00pm**

Call to order, introductions  
Review of agenda

**Introduction of Paducah Gaseous Diffusion Plant Citizens Advisory Board Visitor and  
Public Comment Guidelines**

**DOE Comments**

-- 5 minutes

**Federal Coordinator Comments**

-- 5 minutes

**Liaison Comments**

-- 5 minutes

**Presentations**

--30 minutes

- DUF6 Overview - Reinhard Knerr
- MCS DUF6 Conversion Project update - Phillip Weaver

**Administrative Issues**

-- 20 minutes

- EM SSAB Chairs Recommendation – Cleanup Performance Road Map and Communication Strategy
- EM SSAB Chairs Recommendation – Above Ground Storage at the Waste Isolation Pilot Project
- Election of Chair
- Election of Vice Chair

**Public Comments**

-- 15 minutes

**Final Comments**

-- 10 minutes

**Adjourn**



# PADUCAH GASEOUS DIFFUSION PLANT CITIZENS ADVISORY BOARD

---

115 Memorial Drive • Paducah, Kentucky 42001 • (270) 554-3004 • [info@pgdpcab.org](mailto:info@pgdpcab.org) • [www.pgdpcab.org](http://www.pgdpcab.org)

## Paducah Gaseous Diffusion Plant Citizens Advisory Board Meeting Minutes August 17, 2017

*The Citizens Advisory Board (CAB) met at the Environmental Information Center (EIC) in Paducah, Kentucky on Thursday, August 17th at 6:00 p.m.*

**Board members present:** Renie Barger, Bill Murphy, Mike Kemp, Tom Grassham, Basil Drossos, Victoria Caldwell, Carol Young, Patrick White, Judy Clayton, Nancy Duff, Cindy Ragland, Renea Akin, Celeste Emerson, and Charles Allen.

**Board Members absent:** Lesley Garrett, Shay Morgan, and Cindy Butterbaugh.

**Board Liaisons and related regulatory agency employees:** Gaye Brewer, (KDWM); Julie Corkran, EPA ; Brian Begley (KDWM); Stephanie Brock (KY Radiation Health Branch).

**DOE Deputy Designated Federal Official:** Jennifer Woodard, DOE.

**U.S. Department of Energy (DOE) related employees:** Robert Smith, Robert Edwards, Reinhard Knerr, James Johnson, DOE; Lynette Bennett, Four Rivers Nuclear Partnership, LLC (FRNP); Phillip Weaver, Mid-American Conversion Services (MCS); Eric Roberts, Jim Ethridge, EHI Consultants (EHI).

**Public:** Mike Turnbow, and Fran Johnson.

### Introductions:

**Barger** opened the meeting at 6:00 pm, and asked for introductions. She then turned the meeting over to **Roberts** to introduce the revised guidelines for Public Comments. **Drossos** suggested adding a statement to extend the guidelines to cover the parking lot area also.

### DOE Comments

**Edwards** provided comments on DOE activities at the PGDP site. He explained the upcoming contract transition and employment changes. **Akin** asked what was meant by characterizing the building. **Edwards** said that it meant that all piping in the buildings would be analyzed and measured for deposits from plant operations. **Clayton** asked about the “holdup” in the C-337 building and what the plans were for it. **Edwards** indicated that workers would be doing mechanical removal. **Drossos** asked at what point during the new contract purging and demolition of the buildings would occur. **Edwards** said that the demolition would not occur within the ten year scope of the new contract. **Drossos** then asked if funding levels remained the same and the workforce was reduced, what would happen to the extra funds. **Edwards** said that the recent past workforce had been supported with carryover funds from recent years budgets but that was now gone and the current budget would not support that level of

workforce. **Clayton** asked what the level of workforce would be after the staff reduction. **Edwards** indicated that the workforce would be reduced by around 200 people. **Murphy** then asked if the buildings would be standing as they are now for twenty years. **Edwards** answered by saying that the buildings would be standing as they are at least until the end of the upcoming ten year contract assuming flat funding. **Drossos** asked if there was a risk of the plant being put into safe status because of a lack of funding. **Edwards** indicated that there was always risk because he could not foresee what funding level Congress would approve. **Drossos** then asked what the mix was between actual remediation and hotel costs. **Edwards** indicated that the number of employees affected hotel costs as well as the hope that optimization would also lower hotel costs so more remediation work could be performed. **Murphy** asked if there was any way to predict what percentage of employees would be carryover from the current contract compared to how many new employees would be needed. **Edwards** indicated that that could not be guessed until they evaluate what could be supplied by the current workforce, as well as who might be ready to retire. **Murphy** asked what type of educational background would be needed for the non-destructive assay (NDA) technician position. **Edwards** explained that the educational background could vary depending on experience. **Murphy** then asked how many people would be involved in the NDA work. **Edwards** indicated that it would be for the contractor to determine. **Murphy** asked what the time period would be for the start of the NDA work. **Edwards** said that the process had already begun. **Murphy** asked if the hardware had been obtained yet. **Edwards** said that it had not. **Clayton** asked if the waste disposal cell had been put on hold, with the new direction for the contractor. **Edwards** indicated that DOE, EPA and KY were developing a plan on how to leave that project so that they would be able to return to it when needed. **Kemp** then asked how the work path forward would influence the Burial Grounds. **Edwards** said that with the work on the C-400 project ramping up, there would not be enough funds to do much of anything on other projects. **Drossos** said that the capital expenditures for future work had a portion that is labor and would continue to help the local economy. **Edwards** agreed. **Grassham** then asked for an explanation of hotel costs. **Edwards** said that the hotel costs were the costs associated to keep the site open without doing anything else. He added they were things like utilities costs, and labor costs to maintain the site.

### **Federal Coordinator Comments**

**Smith** welcomed everyone and said he appreciated their time. He also said that there would be a survey sent out to stakeholders to help determine how well DOE is communicating with the public. He added that when the survey was completed, they would share the results with the CAB. **Caldwell** asked who gets the survey and how is that determined. **Smith** said that the recipients were determined from a mailing list made up of plant neighbors, elected officials, chamber of commerce members, and other people that had signed up to be on the mailing list.

### **Liaison Comments**

**Corkran** said that she just wanted to reiterate what **Edwards** said about the agreement that pertained to the Federal Facility Agreement (FFA) and that EPA was happy to be ready to move forward.

**Begley** added his appreciation for the progress made on the FFA that had been done the previous week on the C-400 Complex Operable Unit.

### **Presentations**

**Roberts** introduced the plan for the upcoming CAB meetings. He then turned the meeting over to **Woodard** to introduce **Reinhard Knerr** for a Depleted Uranium Hexafluoride conversion plant overview. **Murphy** asked what happened to the converted material. **Knerr** indicated that the next presentation by **Phillip Weaver** would address that. He added that the oxide was put back into the

cylinders and stored on a cylinder yard at the site because there was no disposal path at this time. **Murphy** then asked if there was potential use for the material in the near future. **Knerr** said that a few years ago, DOE had issued a Request for Proposal requesting someone that might make use of the material. He added that Global Laser Enrichment (GLE) had received a contract to use the material but that had not implemented their plan at this time. **Drossos** asked what the material split was between Portsmouth and Paducah for the remaining DUF6 material. **Knerr** indicated that approximately 2/3 of that material was located at Paducah. **Drossos** asked about sale of the hydrofluoric acid from the conversion process. **Knerr** indicated that **Weaver** would be covering that in his presentation. **Clayton** asked what the plan was for adding to the workforce at the conversion plant as more of the current workers retire. **Knerr** said he would let **Weaver** cover that.

**Knerr** then introduced **Weaver** who is the plant manager for Mid-America Conversion Services, the operator of the DUF6 conversion facility, for an update and path forward for the facility.

**Kemp** asked what was done to the cylinders before putting the oxide from the process back into them. **Weaver** said that they cut off the old valve used to remove the material and put a different type of valve on the cylinder. **Caldwell** asked if there was a volume difference between the material before and after conversion. **Weaver** indicated that it was close to the same. **Murphy** asked for an explanation of the environmental hazard for uranium hexafluoride. **Weaver** explained that if the UF6 were to be exposed to the hydrogen in the atmosphere, it would produce hydrofluoric acid as a gas, which is very hazardous. He added that it was more of a chemical hazard and not a radioactive hazard. **Drossos** asked for an explanation of what would happen after an exposure to the HF acid. **Weaver** said that HF acid was attracted to calcium and because your bones contain calcium, the acid would just eat through any part of your body that it came in contact with to get to your bones. **Barger** asked how long the conversion process took to complete. **Weaver** said that one cylinder took 24 hours to process. **Brock** asked if there was anything left in the cylinder after the DUF6 was introduced into the plant for processing. **Weaver** said that there was usually a very small portion that could not be removed. **Kemp** asked if there were plans to speed up the processing time any. **Weaver** indicated that he hoped the process would become more efficient in the future. **Drossos** asked what the frequency of shipping the oxide offsite was. **Weaver** indicated that they shipped 4 days a week by truck. **Woodard** added that because of a rail line that was being repaired, the shipments were by truck, but would resume rail shipments as soon as the line was repaired. **White** asked if there was plans to add other processing lines to the plant. **Knerr** indicated that another line could not physically be added to the current plant. **Murphy** asked what the process was for picking which cylinders to convert. **Weaver** said that they were given a list of which cylinders to convert and that DOE had input into which ones were added to the list. **Knerr** added that there was a difference in the enrichment level of the material in some of the cylinders and that went into the decision of which cylinders to process. He added that the higher assay cylinders were designated for sale to GLE. **Murphy** asked what type of educational background someone would need to be hired to work at the plant. **Weaver** said that he would be looking for craftsmen like electricians and mechanics. **Young** suggested contacting the West Kentucky Community and Technical College to see what they might be able to offer as far as types of training needed. **Kemp** suggested contacting the American General Contractors for possible help with training. **Weaver** said that they would first consider the list of former plant workers to fill positions.

### **Administrative Issues**

**Roberts** introduced **Recommendation: Cleanup Performance Road Map and Communication Strategy** from the Spring Chairs meeting for vote. **Barger** and **Kemp** explained to the Board the recommendation. It was pointed out that one sentence did not make grammatical sense, and since the local Boards cannot edit these recommendations, the Board agreed to include the condition of clarifying the sentence for passing. This recommendation was then passed by acclamation with that one condition.

**Roberts** then presented **Recommendation: Above Ground Storage at the Waste Isolation Pilot Project**, also developed during the Spring Chairs meeting. **Kemp** and **Barger** again provided an explanation of the recommendation to the Board. The recommendation was passed by acclamation.

**Roberts** then introduced elections for Board Chair and Vice Chair. He then presented the idea of staggering elections for the two offices one year apart. The Board thought that idea was a good way to proceed.

**Barger** nominated **Murphy** for Board Chair. **Murphy** was elected Chair by acclamation.

**Roberts** introduced elections for Vice Chair. He suggested asking **Kemp** to continue to serve as Vice Chair for the coming year. **Kemp** said that he was will to do that but noted that **Murphy** as well as himself are both technical people and he said that he did not mind someone else serving as Vice Chair to provide the Board a more balanced leadership. **Akin** said she thought since **Kemp** had been serving, that he could provide guidance since **Murphy** had not served in leadership capacity for the Board. **Kemp** was elected as Vice Chair by acclamation to serve for one year. **Kemp** added that the appointments to the Executive Committee would be coming up and asked everyone to be thinking if they might be willing to serve in that capacity. **Barger** indicated that she appreciated being able to serve as Board Chair for the past two years and thanked everyone for their support.

#### **Public Comments**

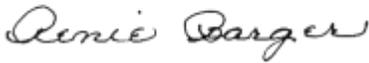
None

#### **Final Comments**

**Roberts** said that he appreciated everyone's involvement and attention. He added that he thought the Board was one of the best in the complex and considered himself lucky to be associated with the group.

**Barger** adjourned the meeting at 8:00 pm.

Approved by **Renie Barger, Chair**



---

**Renie Barger**

Paducah Gaseous Diffusion Plant  
Citizens Advisory Board  
111 Memorial Drive  
Paducah, KY 42001  
**Phone: 270.554.3004 or 866.650.7437**  
**Fax: 270.554.3248**  
[www.pgdpcab.energy.gov](http://www.pgdpcab.energy.gov)



### Useful Contacts

**U.S. Department of Energy**  
Paducah Site Office  
270.441.6800

**U.S. Department of Energy**  
Employee Concerns Program Hotline  
859.219.4016

**U.S. Department of Energy**  
Freedom of Information Officer  
513-246-0582

**U.S. Department of Energy**  
Portsmouth/Paducah Project Office Public Information  
859.219.4010

**U.S. Department of Labor**  
Paducah Compensation Resource Center  
270.534.0599

# Paducah Gaseous Diffusion Plant Citizens Advisory Board Visitor and Public Comment Guidelines



# CITIZENS ADVISORY BOARD

These guidelines were compiled to provide a framework for orderly meetings and the respectful sharing of information and ideas at full board meetings of the Paducah Gaseous Diffusion Plant (PGDP) Citizens Advisory Board (CAB). Board meetings are designated time for Board members to conduct the business of the CAB. Board meetings also provide a designated comment period for members of the public to be heard on matters before the Board. Such input during designated periods is encouraged and appreciated by the CAB.

**The CAB encourages individuals who make comments at board meetings to focus on the mission of the CAB: DOE Environmental Management cleanup activities at the PGDP.** If you wish to address topics that are outside the Board's scope, please submit your comments in writing and DOE site management and the Board will be happy to receive them.

## FULL BOARD MEETINGS

- Outside of designated public comment periods, discussions during Board meetings are limited to Board members and liaisons who are seated at the table. Visitors are asked to remain in their seats within in the designated public spaces throughout the meeting. Disruptive visitors will be asked to excuse themselves in order for the board to accomplish its business.

- Proper meeting decorum is expected by all attendees. Anyone exhibiting aggressive, disrespectful, menacing or intimidating behaviors will be asked to leave. This expectation extends prior to and after the meeting for interactions with board members, DOE and visitors.

- The public comment period is time set aside for members of the public to make comments and not for discussion, debate or responses.

- 15 minutes is allocated at each full board meeting for public comment. The board's Deputy Designated Federal Officer, at his or her discretion, may extend this period if doing so will allow more people to address the board on current business matters.

- The time for public comment will be evenly divided among the members of the public wishing to speak, not to exceed five minutes for any speaker.

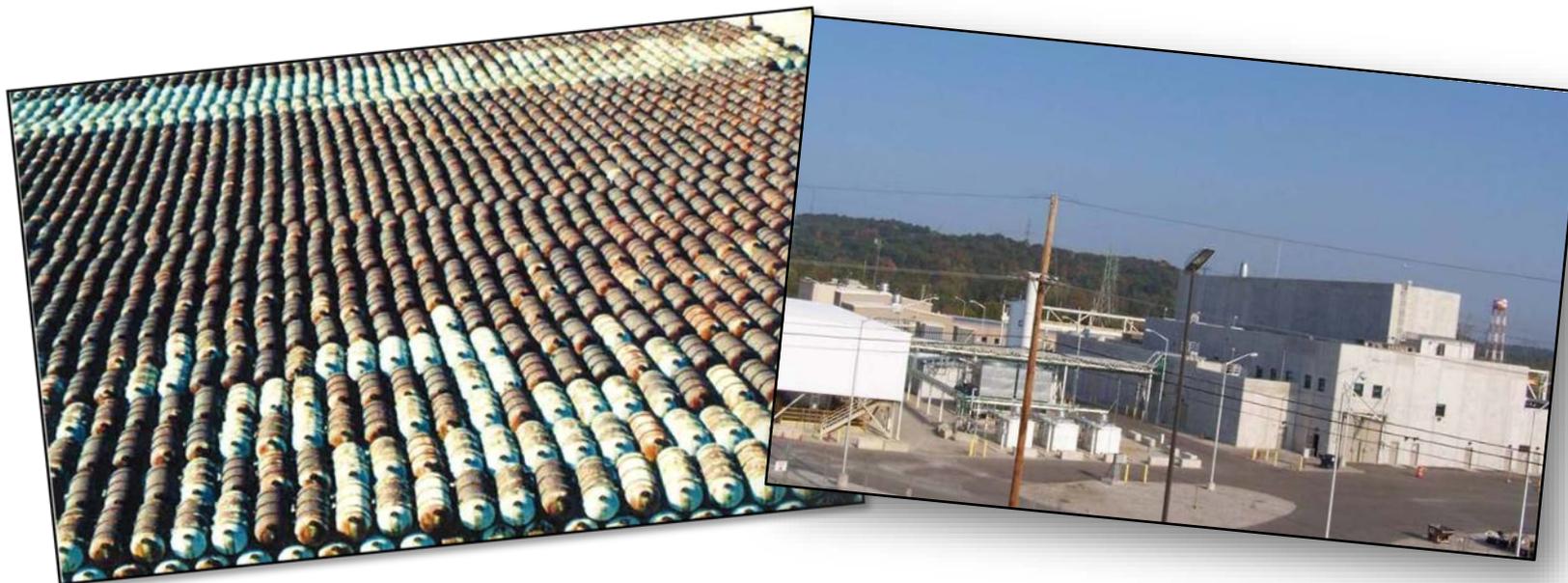
- Any member of the public may make a comment at the designated time. Those making comments should speak into the microphone provided. Speakers are asked not to remove the microphone from the stand. Speakers should identify themselves and the organization (if any) they represent.

- The facilitator or CAB Chairperson is responsible for recognizing public speakers and assuring these guidelines are followed. At any point, the Deputy Designated Federal Official may adjourn the meeting.

## SUBCOMMITTEE MEETINGS

Public comment time generally is not scheduled for Subcommittee meetings. At the Subcommittee Chair's discretion, however, time may be allotted for public comment.





## Mission

Safely convert remaining depleted uranium hexafluoride (DUF<sub>6</sub>) into stable uranium oxide for storage, reuse, or disposal and aqueous hydrofluoric acid for recycle into commerce. Approximately 760,000 metric tons of DUF<sub>6</sub> remain.

- Both Plants coming out of an extended shutdown
- FY17 Conversion Target – 8,500 metric tons
- FY17 Through FY22 Target – ~130,000 metric tons



## Paducah

- Four lines operational  
- 5300 Metric Tons processed to date

## Portsmouth

- Three lines are ready for processing
- Restart requires a formal Readiness Assessment. Readiness Verification Begins August 21<sup>st</sup>

## Focus

- Robust nuclear safety culture
- Safe, Steady, Deliberate operations
- Continuous improvement





**Portsmouth**



**Paducah**

## One Plant – 7 Lines

- Gain efficiencies through common design modifications
- Gradually increase production capacity

31,500 Metric Tons/Year Converted



# Mid-America Conversion Services, LLC DUF6 Conversion Project Paducah Citizens Advisory Board August 17, 2017



Phillip E. Weaver, Paducah Plant Manager

# Who is Mid-America?

MCS is a joint venture that blends the strengths of its partners into a single cohesive team:



Phillip Weaver  
Paducah Plant Manager



Alan Parker  
President and Project  
Manager



Zack Smith  
Portsmouth Plant Manager

# ATKINS

*Atkins* brings Program Management,  
nuclear/chemical operations, and  
commercial waste processing expertise



Adam Goldberg  
Implementation Process  
Tech Officer/Site  
Engineering Manager



**Westinghouse**  
*Westinghouse Government Services*  
brings conversion operations  
experience

# FLUOR

*Fluor Federal Services* provides<sup>®</sup>  
efficient integration into the Paducah  
and Portsmouth sites



Sharon Shirley  
Chief Admin Officer and  
Business Manager



Fred Jackson  
Chief Process Tech  
Officer/Deputy Project  
Manager



Todd Butz  
Environmental, Safety,  
Health and Quality  
Manager

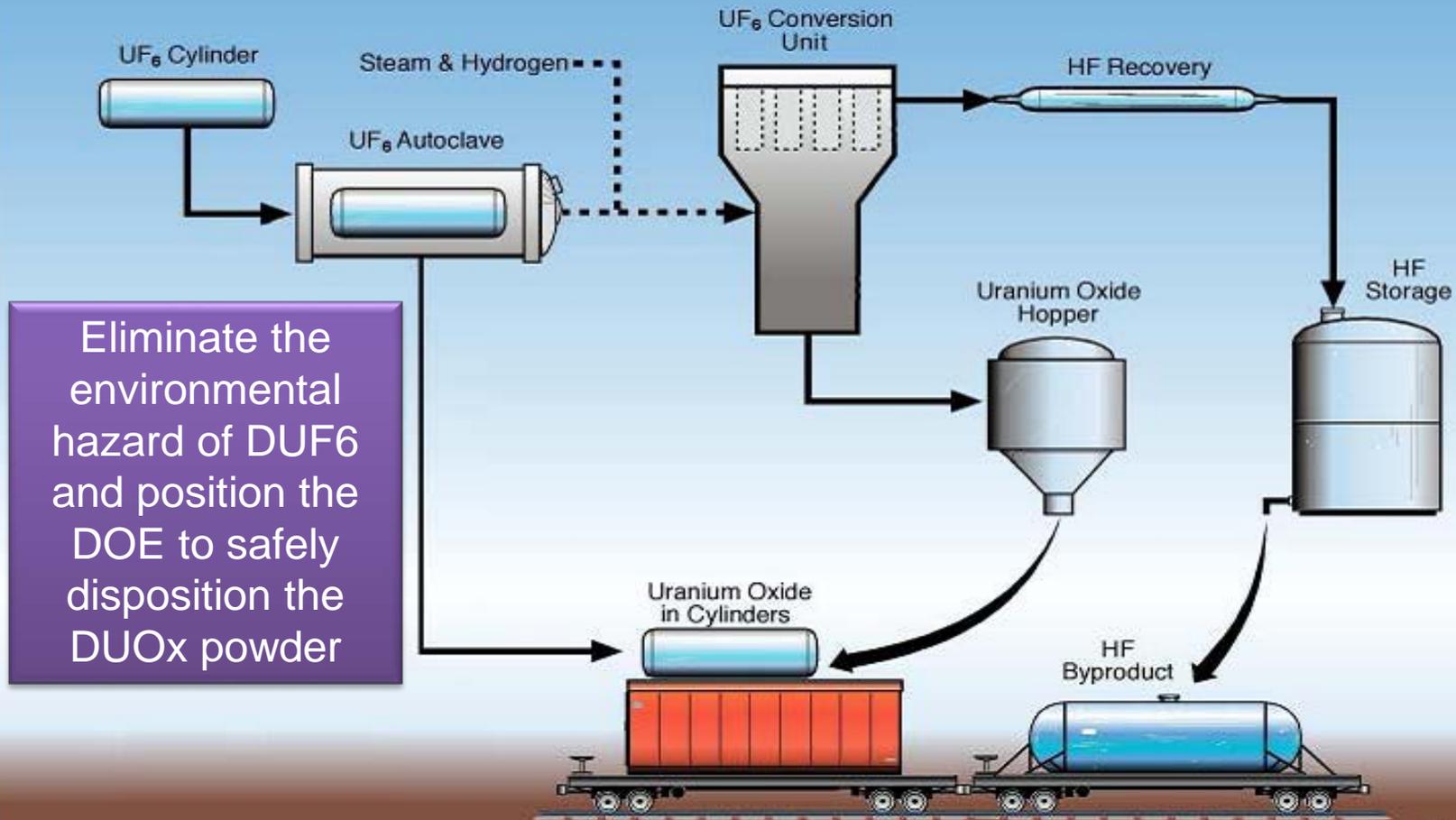
# DOE Project Mission



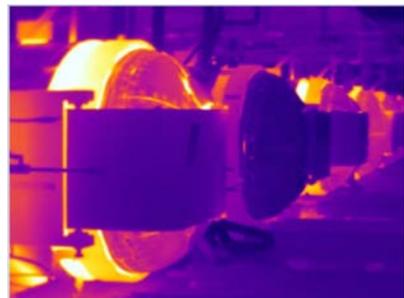
- Chemically convert Depleted Uranium Hexafluoride ( $\text{DUF}_6$ ) into a stable form of uranium oxide powder
  - *33,000 Metric Tons (mT) of the 559,000 mT inventory (6%) is complete*
- Produce Hydrofluoric (HF) acid for industrial use
  - *Glass finishing, silicon chip manufacturing, metal cleaning*
- Surveillance and Maintenance of over 40,000 steel cylinders containing  $\text{DUF}_6$  & powder
- Complete the work safely
  - *730 days without a lost time accident or recordable injury...2 yrs. and counting*
  - *Recipient of KY Department of Labor Governor's Safety Award*



## DUF<sub>6</sub> Conversion Process



# MCS Objectives



**Safe Flow**

**Sustainable Performance**

- Zero notices of violations
- Reduction in radiation exposure 2% per year
- Zero environmental releases
- Zero safety incidents
- 100% accuracy of CID entries\*
- 100%\* NMC&A inventory reconciliation
- Zero cylinder yard security violations
- Zero cylinders exceeding inspection date
- Zero errors in delivery of cylinders to the staging yard
- Zero delays in conversion operations related to cylinder delivery
- Zero delays to cylinder modifications related to cylinder delivery process



\* Legend:

CID – Cylinder Information Database

NMC&A – Nuclear Material Control and Accountability

- MCS employees ~240 at Paducah Plant
- Educational Outreach Programs
  - Public tours
  - DOE Science Bowl
- Easter Seals Telethon of Stars
- Stuff the Bus – School Supplies
- United Steel Workers Local 550 Cassidy's Cause charity

- Chamber of Commerce
- Feds Feed Families
- PACRO Paducah Area Community Reuse Org
- Paducah Economic Development
- Red Cross Blood Drive
- United Way

# What do We Bring to the Table?

- *Our Integrated Production System will enable safe-sustainable-performance. It combines industry best practices and encompasses all elements of DOE's Integrated Safety Management System.*

Element	Purpose
 <b>Human Performance</b>	Minimizes frequency and severity of events in safety, quality, and operations
 <b>Organizational Foundation</b>	Ensures competent people are trained, available and in the right jobs
 <b>Continuous Improvement</b>	Continuous evaluation and improvement of safety, quality, and productivity
 <b>Training and Learning</b>	Develop and sustain a knowledgeable and skilled workforce
 <b>Work Management</b>	Systems and procedures to achieve production goals and implement predictive maintenance
 <b>Equipment Reliability</b>	Equipment life-cycle management to optimize cost and performance
 <b>Operations Focus</b>	Safe Flow results in meeting or exceeding requirements for defect free performance



# MCS Core Values

## **Safety First, Safety Always** –

Ensure the future of our workers by looking out for each other's safety

**Trust** – Foster a trusting relationship by listening to our workforce, community and client(s)

**Integrity** – Be truthful and share information quickly

**Our Team** – Be accountable. Build a team that develops ideas and implements solutions.

**Community** – Know what's important and invest ourselves in the community

